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ATTITUDINAL CHANGES TOWARD ADULT EDUCATION DURING STUDENT TEACHING.

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NORTH CAROLINA UNIV., RALEIGH, N.C. STATE UNIV.

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AT NORTH CAROLINA STATE UNIVERSITY, THE STUDENT TEACHER SEMESTER CONSISTS OF A PERIOD OF 7 WEEKS ON CAMPUS AND 10 WEEKS OFF CAMPUS IN A STUDENT TEACHING CENTER. FROM 1960 TO 1965, ALL AGRICULTURAL EDUCATION SENIORS (166) WHO UNDERWENT STUDENT TEACHING WERE GIVEN A 29-ITEM ATTITUDE INVENTORY AT THE BEGINNING AND END OF THE SEMESTER. THE STUDY FINDINGS SHOWED THAT (1) EACH OF THE 6-YEAR GROUPS SHOWED A GAIN IN FAVORABLE ATTITUDE TOWARD ADULT EDUCATION AS A FUNCTION OF THE PUBLIC SCHOOL, (2) STUDENT ATTITUDE SCORES AT THE BEGINNING OF THE SEMESTER WERE LOWER DURING THE LAST HALF OF THE STUDY, (3) END OF THE SEMESTER SCORES WERE HIGHER DURING THE LAST 3 YEARS, AND (4) BEFORE THEIR TEACHING SEMESTER, STUDENTS FELT TEACHERS SHOULD DEVOTE FROM 31 TO 43.7 PERCENT OF THEIR TIME TO ADULT EDUCATION. AFTER STUDENT TEACHING, THE RANGE BECAME 35.9 TO 48.3 PERCENT. (FS)

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ATTITUDINAL CHANGES TOWARD ADULT EDUCATION DURING STUDENT TEACHING

By
TEXTON R. MILLER
and
HENRY PASOUR
1967

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Attitudinal Changes Toward Adult Education
During Student Teaching,

Texton R. Miller
and
Henry Pasour

1967

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FOREWORD

The North Carolina Research Coordinating Unit in Occupational Education is pleased to have the opportunity of disseminating this report of a study recently completed in the Agricultural Education Department, School of Education, North Carolina State University, Raleigh, North Carolina.

This study was completed and written by Dr. T. R. Miller, associate professor of Agricultural Education, with the valuable assistance of Mr. Henry Pasour, Graduate Assistant. Mr. Pasour made a significant contribution in the compilation, graphing, and statistical analysis of the data.

This publication and others to follow are a result of the partial fulfillment of the commitment of the North Carolina Research Coordinating Unit to:

- (a) Stimulate research in occupational education
- (b) Identify problems for research
- (c) Develop a system by which national, state, and local data may be organized and made available.
- (d) Maintain communication between people who are working in occupational education and research workers.
- (e) Assist in conducting training programs on activities involved in the research-action continuum.
- (f) Provide consultant services in state, local, and area research developmental activities.

Joe R. Clary
Director

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Attitudes of Agricultural Education Seniors
Toward Adult Education Before and After
Student Teaching, N. C. State University, 1960-65

This is a longitudinal study of the viewpoints of senior college students toward adult education as a function of the public school. The primary purpose was to determine the extent and direction of attitudinal changes during the student teaching semester. It was expected that implications would be seen for the programs of both pre-service and inservice experiences in adult education.

The sample consisted of all students who experienced the student teaching semester during the six year period 1960-1965, a total of 166 seniors. The data were gathered each year at the beginning and the close of each student teaching semester, which included a period of approximately seven weeks on campus and ten weeks off campus in a student teaching center. The attitude inventory instrument was designed by Dr. H. E. Beam, a member of the Agricultural Education Staff in 1960, and consisted of twenty-nine items concerning public school education and education in agriculture. All of the items related to assumed responsibilities of the school and the teacher for adult education in agriculture.

The attitude inventory instrument consisted of three parts. The first contained 14 statements to which students gave their reactions in terms of a 5-point scale ranging from "strongly agree" to "strongly disagree". Exactly half of these items exemplified positive attitudes toward adult education. Part II provided a problem situation with a range of eleven possible choices for an answer in terms of the percentage of teacher time to be devoted to adult education. The third aspect of

the schedule requested students to indicate which of thirteen adult education activities they believed a teacher of agriculture should sponsor. Because of the design of the instrument, the data is reported by sections of the inventory.

Tests of Significance of Data

Since it contained the most items and was the most comprehensive in its coverage of the subject, Section I of the Attitude Inventory was selected as the most appropriate portion of the schedule for tests of statistical significance.

The primary goal was to determine whether attitudinal changes observed for the period of student teaching could be attributed to chance. The three techniques used involved the "t" test, an analysis of variance, and the establishment of confidence limits for each of the fourteen items.

The "t" test was used to test the attitudinal gains for each of the six years in the study, with the exception of 1964. In this instance, the inadvertent omission of student names from some of the 1964 schedules prevented the use of the "t" test. However, it was assumed that the class gain for 1964 was significant since the difference of "before" and "after" mean-scores was greater than that of the 1965 class, which had fewer students and which showed a significant mean difference.

The question might well be asked: Can the yearly variations in scores, either the "before" scores or the "after" scores, be attributed to chance. A partial answer of "no" was obtained by using the "t" test to show that the variation between the lowest and highest class score on the "before" scores, and also on the "after" scores, was a significant difference statistically at the .01 level. It appears that there was an

important difference in attitude toward adult education among the different classes of student teachers as they began their final year of college study. Furthermore, some of the classes reached a level of "positive" attitude toward adult education that is statistically higher than that reached by other classes.

The analysis of variance was employed to test the significance of differences noted among the mean-increases made by the various classes during their student teaching. This variation was significant at the .05 level.

As a matter of interest, each of the 14 items in the inventory had a "positive" mean-increase. By using the "error term" derived in the analysis of variance, "confidence limits" were placed on each of the mean increases to determine which were significant gains. Comparing the fourteen individual items by the mean-increases between "before" and "after" scores, it was found that eight items had mean-increases greater than that assigned to chance. Further information may be found in Appendix A.

In summary, the testing of the data showed that there were statistically significant variations among the classes (or by the years) on (a) Entrance mean-scores, (b) Ending mean-scores, and (c) Mean-score of gain during student teaching. Further, on eight of the fourteen inventory items, mean-increases of "ending scores" over beginning scores were statistically significant.

PRESENTATION OF DATA

The data are presented in two sections. The first (Section A) shows a comparison by classes for each of the three parts of the inventory. In Section B, each item in part one is presented separately, showing mean-scores by classes to provide a longitudinal view of the acceptance or rejection of each attitudinal statement.

Section A - Overall Comparison of Year Groups

Part I. Fourteen Statements with 1-5 scale score.

Figure 1 compares the overall level of student attitudes toward adult education before and after student teaching for each of six years. The data consist of the mean-score for each class on a total of 14 items. The perfect mean-score would be 70 and indicate unanimous selection of "strongly agree" for those seven statements favoring adult education and the reverse, "strongly disagree", for the other seven statements not favorable to adult education as a responsibility of the public schools. In making the graph, the data were adjusted by reversing the scale for seven of the 14 items so that all scores reflecting a positive attitude toward adult education would read toward the high end of the 1 to 5 attitude scale.

Mean Score

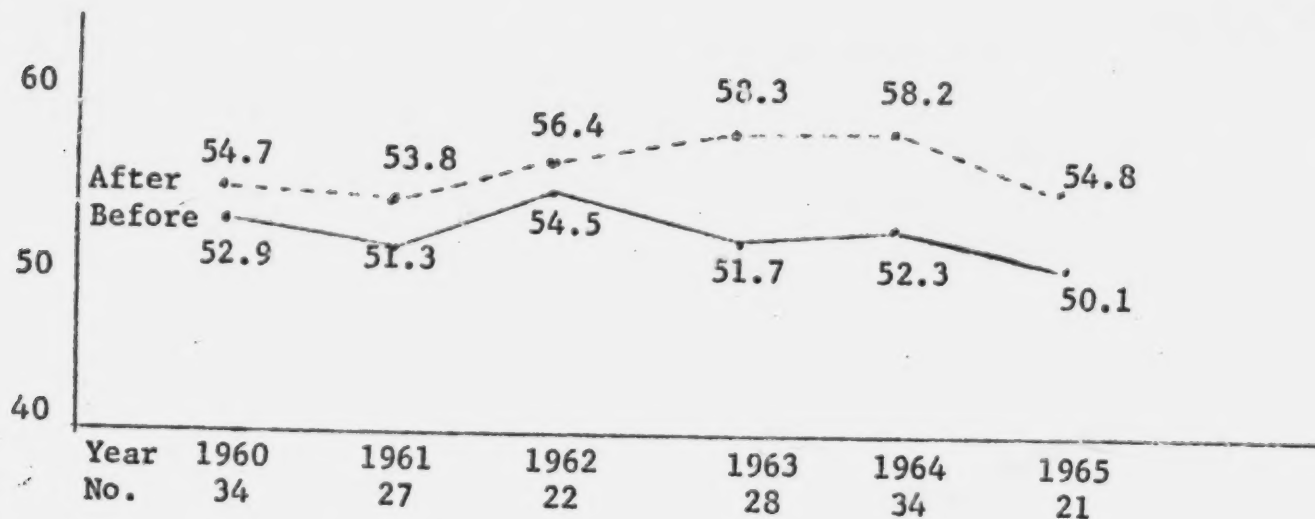


Figure 1. Comparison of Viewpoints of College Seniors Toward Adult Education Before and After Student Teaching N. C. State, Agricultural Education, 1960-1965.

It is evident from Figure 1 that there was a gain by each class during the student teaching period. As previously indicated, these gains were statistically significant except for the class of 1962. Even for

the class of 1962, the mean-increase was equal to the 1960 class, but the smaller number of cases (22 vs 34) prevented it from being statistically significant. Thus, overall, one can say that these students had made significant improvement in their viewpoints toward adult education while doing their student teaching. In addition, the gains of the last three years were obviously greater than those of the first three years.

Figure 1 also indicates a difference in the attitude of student teachers by years (or classes) as they enter student teaching. The amount of this variation was shown to be statistically significant. Beginning in 1962, there was a general downward trend in attitude mean-scores of entering groups of student teachers. One can only speculate about what factors might be correlated with this phenomenon since this study is not sufficiently comprehensive to provide the data needed for a calculation.

The line-graph "after student teaching" mean-scores (Figure 1) also has a statistically significant variation over the six year period. Generally, the more recent classes reached higher levels of "positive" attitude toward adult education.

It is interesting to note that the class (1965) with the lowest average score on the "before" inventory was not the class with the greatest gain. On the other hand, the class with the highest entry score (1962) made one of the lower gains. A more comprehensive study than this one would be needed before conclusions could be drawn concerning the importance and meaning of the variation between classes on either the entry or concluding scores.

Part II - The Amount of Time for Adult Education

Part two of the Attitude Inventory consisted of a problem situation designed to make realistic a decision by the student concerning the percentage of teacher time which should be given to the adult education phase of the local vocational agriculture program.

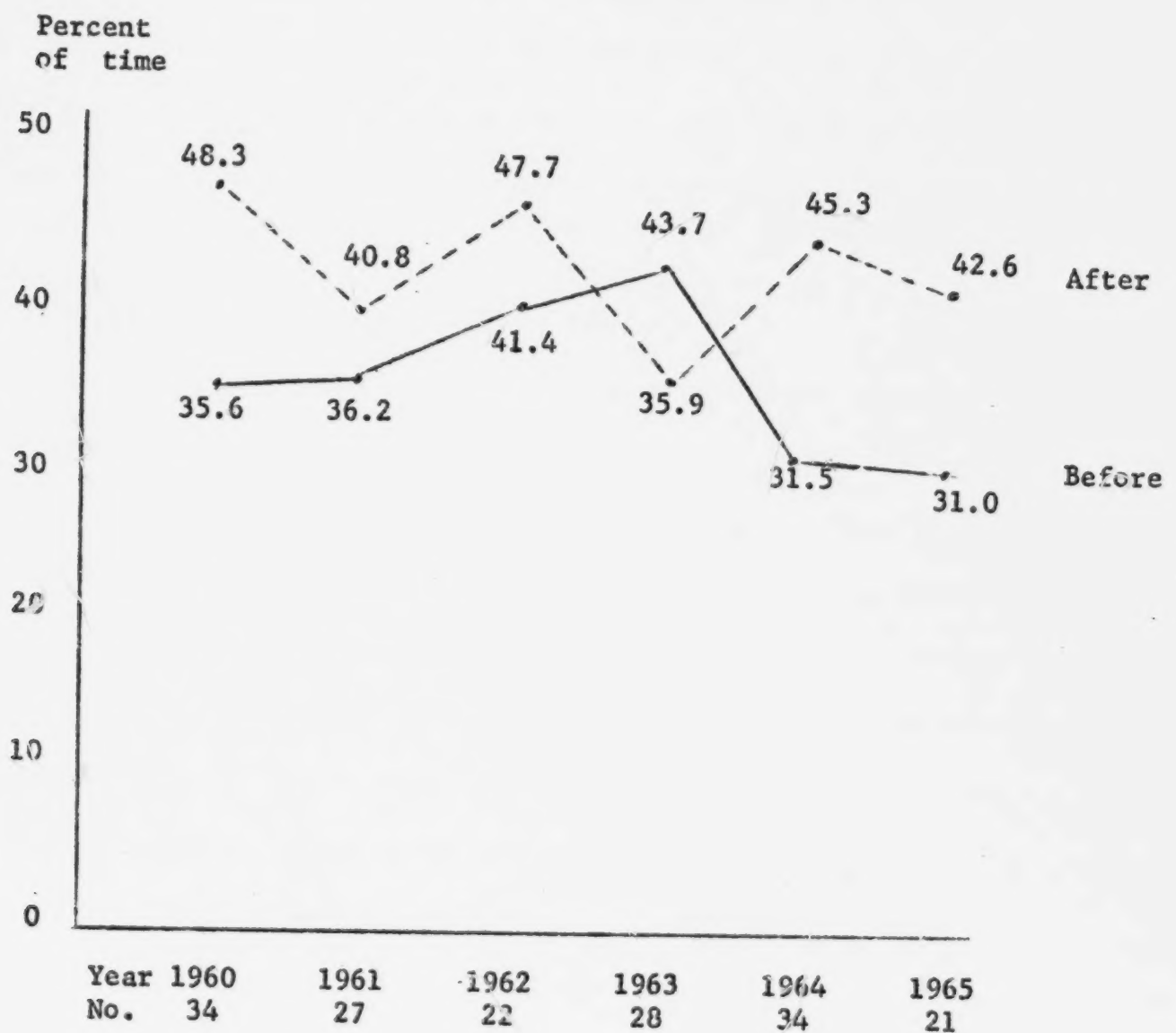


Figure 2. Mean Percentage of Teacher Time Proposed For Adult Education by Six Groups of Student Teachers Before and After Student Teaching, N. C. State, Agricultural Education, 1960-1965.

Figure 2 indicates that the mean score of five of the six classes of student teachers moved considerably toward the assumed, appropriate

appointment of fifty percent teacher time devoted to the adult education program. Many interesting questions are posed by (1) the consistent rise and fall in alternate years of the final scores reached by the different classes, (2) the sharp contrast of the 1963 class to the other five groups on both the initial and final scores, and (3) the generally "high" entry level of the classes of both 1962 and 1963. Future study should include data which could be analyzed to determine factors associated with the observed variation in both entrance and concluding scores.

Part III - Adult Education Activities

The third part of the attitude inventory provided student teachers with the opportunity to check any or all of a list of thirteen teacher activities related to adult education in agriculture. Figure 3 shows that all groups of student teachers accepted more of the activities after completing their student teaching. There appears to be a downward trend over the years in the number of adult education activities acceptable to student teachers. This seems true for both the number acceptable when student teachers began their student teaching semester and when they concluded it. The 1960 class accepted 9.4 of the activities at the beginning compared to 8.4 activities by the 1965 groups. Following student teaching, the 1960 group was favorable to 11.3 activities but the 1965 group averaged only 9.2 activities. Here again more data concerning the students, the trends among teachers in the field, and other factors (such as state leadership emphasis) could be utilized in an analysis of items associated with these apparent trends in attitudes by student teachers.

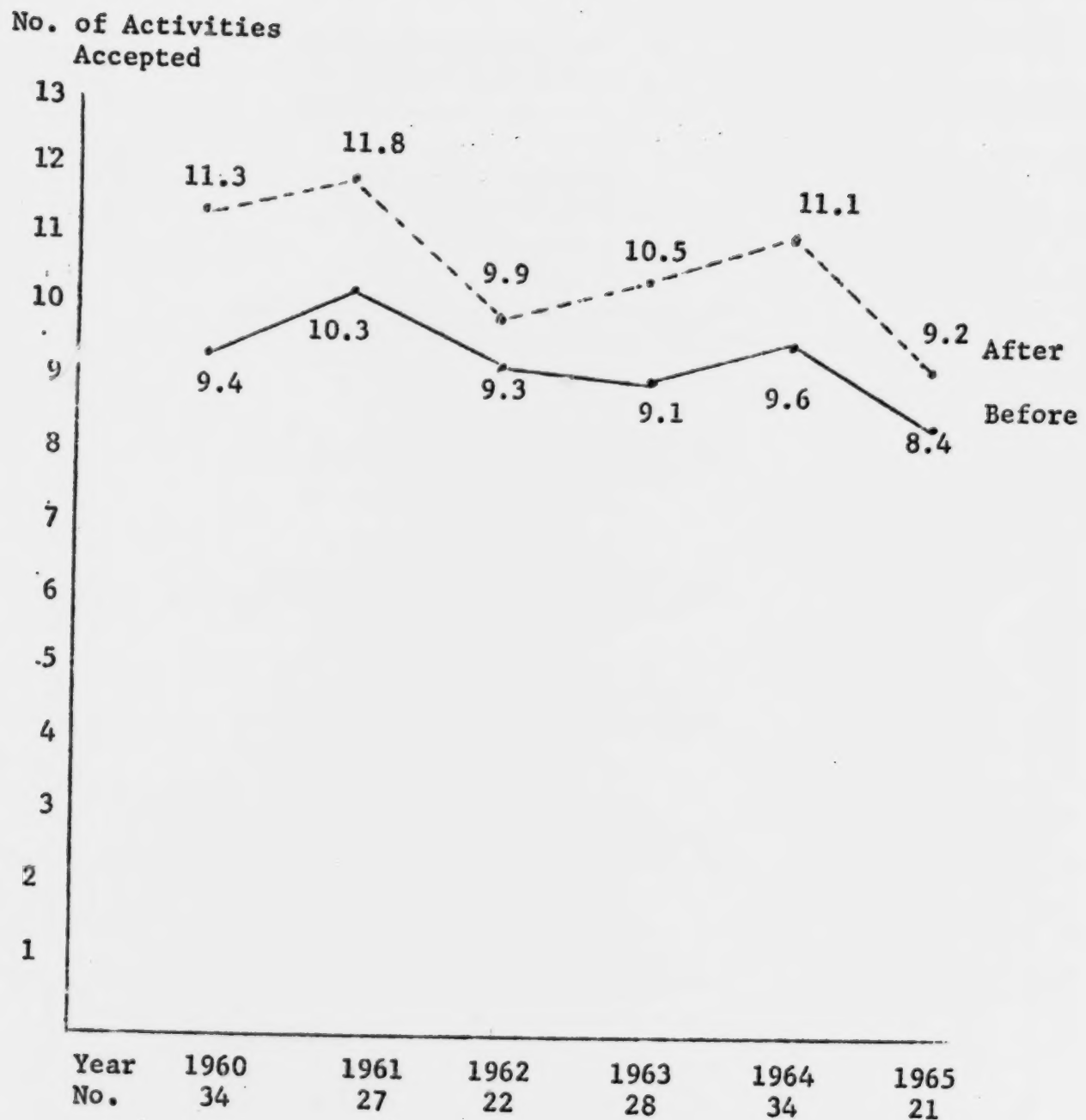


Figure 3. Average Number of Adult Education Activities Acceptable to 6 Groups of College Seniors Before and After Student Teaching, 1960-1965.

Figure 4 shows how student teachers accepted each of the 13 adult educational activities. Greatest gains were shown for (1) utilizing farmer clubs (20.2 per cent), (2) newspaper releases (19.4 per cent), (3) enterprise short courses (16.2 per cent), and (4) radio and television programs, (14.8 per cent).

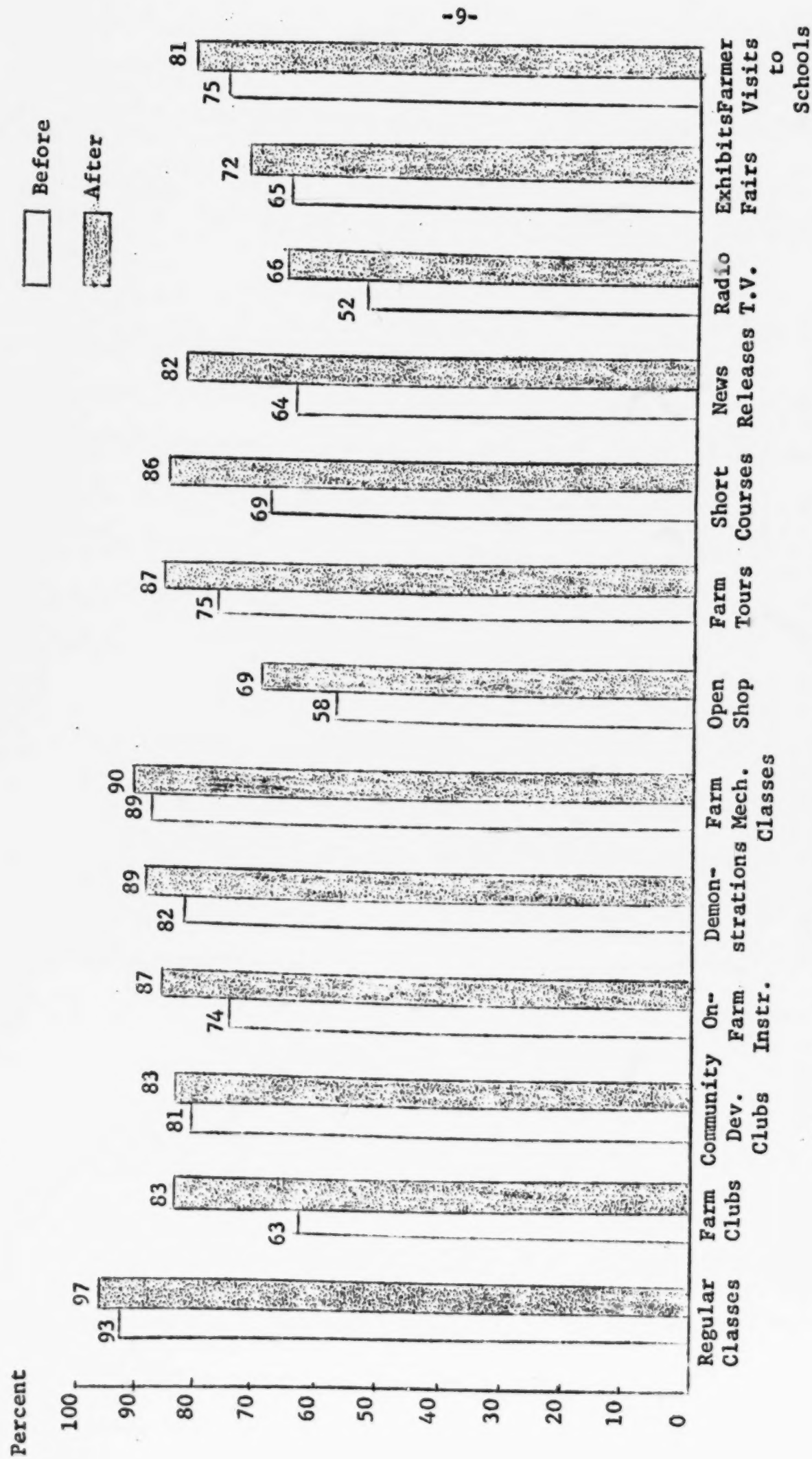


Figure 4. Percentage Acceptance of 13 Adult Education Activities
Before and After Student Teaching, N. C. State,
AED, 1960-1965

It should also be noted that most of the adult education activities had very high acceptance among the student teachers. Ten of the 13 activities were acceptable to at least 80 per cent of the 166 student teachers upon completion of their student teaching. This can also be seen from Figure 4.

Section B. Comparison of Year-Groups By Scaled Items

In the beginning it was explained that the first 14 items of the Attitude Inventory were answered on a five-point scale of agreement-disagreement. One-half of the items were designed to reflect a favorable attitude toward adult education when checked at the "agreement" end of the scale. In contrast, the other seven statements reflected a negative attitude when answered at the "agreement" end of the scale. The following analysis begins with that group of seven attitude items for which the most appropriate responses should have been "disagreement" with the statement. Thus on a five-point scale marked as follows, the more "positive" attitude toward adult education is reflected in the higher score:

SA	A	N	D	SD
1	2	3	4	5
Strongly Agree	Agree	Undecided or Neutral	Disagree	Strongly Disagree

Reaction to Negative Statements

In Figure No. 5 concerning the major function of Vocational Agriculture, it can be seen that four of the six groups of students began student teaching while tending to agree that "teaching boys" was the major function of Vocational Agriculture. A fifth group (1960) seemed essentially neutral on this item. After student teaching, the situation was reversed with four groups tending to disagree with the

above item and a fifth group having definitely moved toward disagreement. More important perhaps, is the indication that all six of the groups ended with a more favorable viewpoint toward adult education than they showed at the beginning.

Inventory Item No. 2. "The Major Function of the Vocational Agriculture Department Should be that of Teaching Vo-Ag to High School Students"

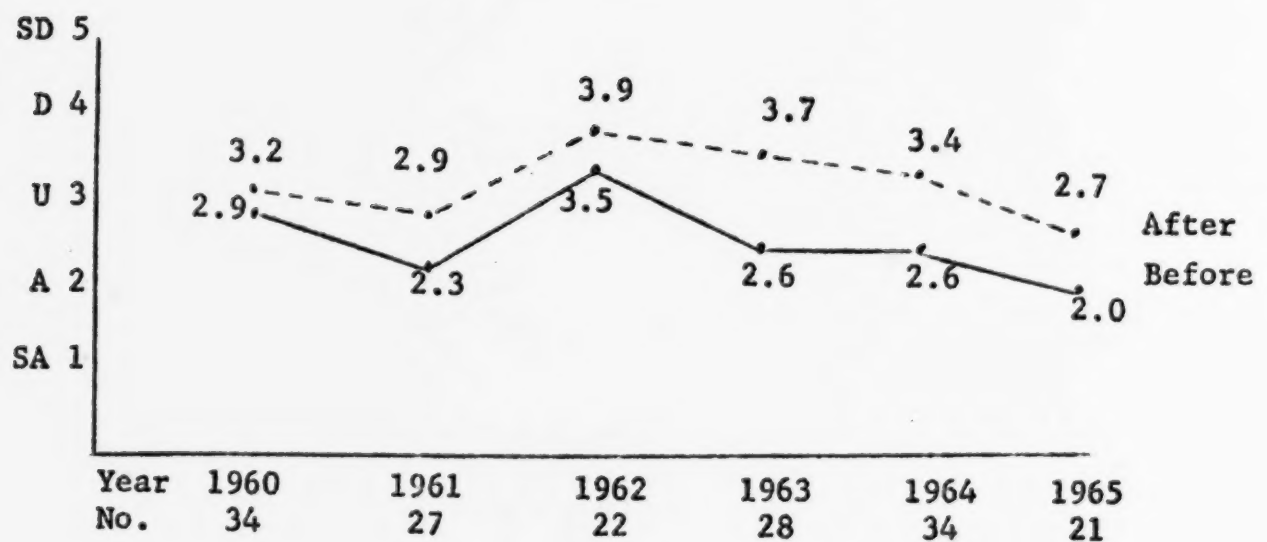


Figure 5. Comparison of Viewpoints of College Seniors Toward Statement No. 2 Before and After Student Teaching, N. C. State, Agricultural Education, 1960-1965.

The next item for which "disagreement" obviously represented a positive attitude toward adult education in the public school was the No. 3 statement. In essence, the statement proposed that the public schools should not provide adult education for farmers. In this case, all student groups entered student teaching with such strong views against the proposition that one would not expect much "gain" during the student teaching experience. Nevertheless there were slight gains exhibited by each class except for the 1960 group, which had only a slightly lower mean score at the end of the semester of work than at the start.

Inventory Statement No. 3: "All agricultural education for adult farmers should be provided by agricultural agencies other than the public schools."

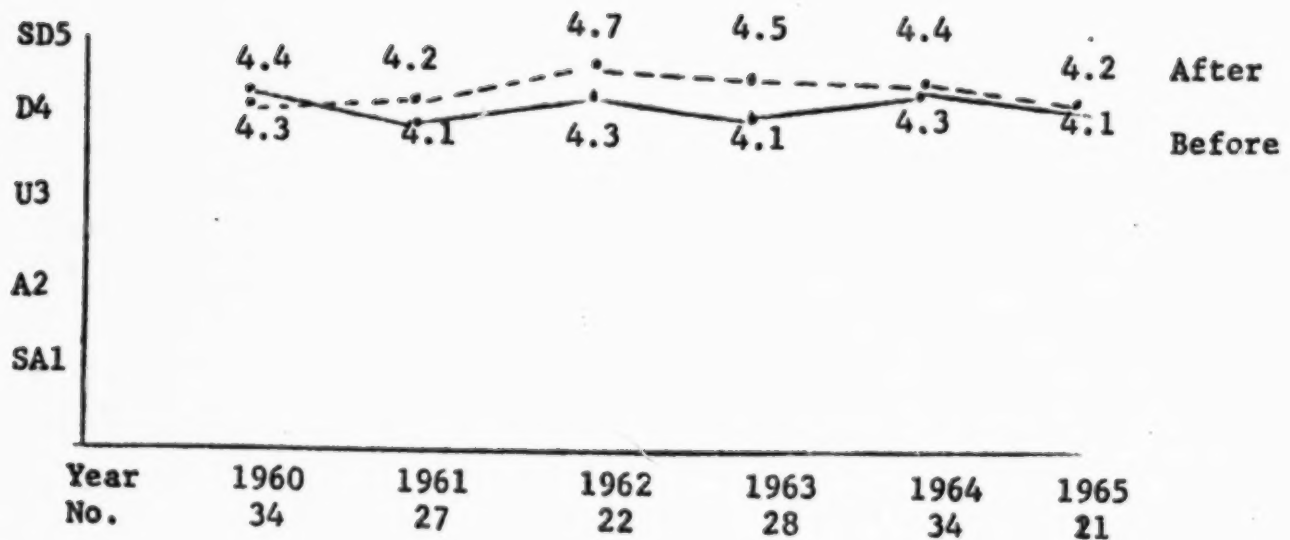


Figure 6: Comparison of Viewpoints of College Seniors Toward Statement No. 3 Before and After Student Teaching, N. C. State, AED, 1960-1965.

All classes except the 1963 group began student teaching with a definite tendency to disagree with viewpoint No. 8, (p. 13) an item which implied that public school education should not serve drop-outs or those over 21 years of age. However the 1963 group showed remarkable gain and ended with a mean score of 4.6, practically equal to the most advanced group. There was a decided gain here toward adult education for all the groups except the 1960 students, and their entry score was quite high. In addition there was a trend toward higher levels of positive attitudes toward adult education from the 1960 group to the 1965 group.

Inventory Statement No. 8: "Free public school education in N. C. should stop with age 21 or upon completion or dropping out of high school".

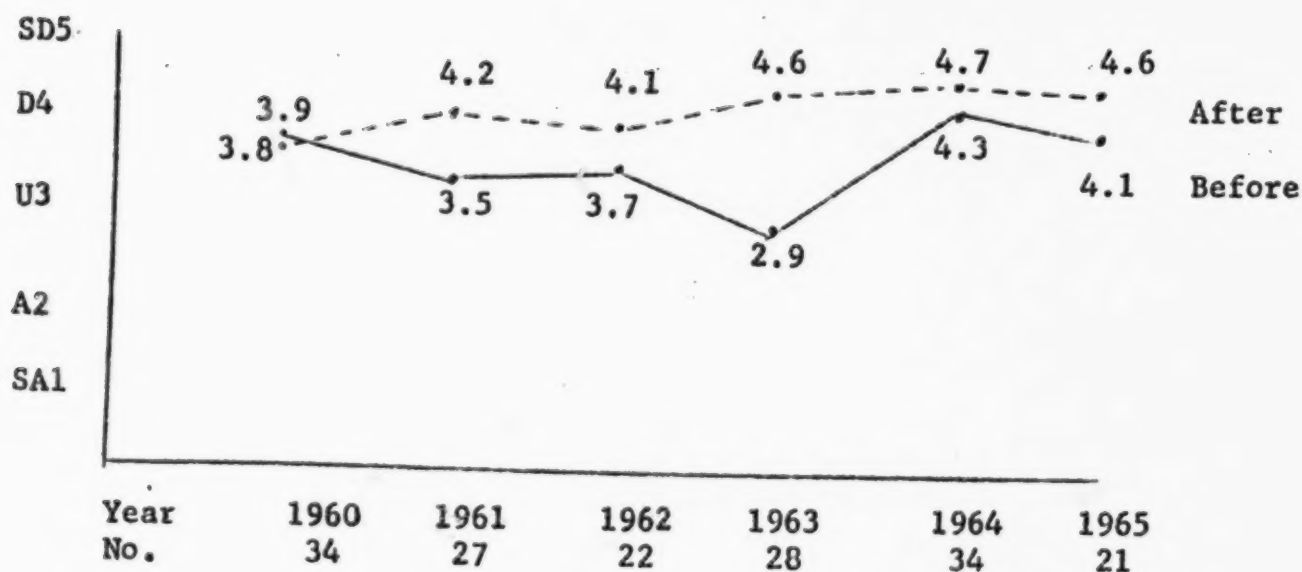


Figure 7: Comparison of Viewpoints of College Seniors Toward Statement No. 8 Before and After Student Teaching, N. C. State, AED, 1960-1965.

The next two items, No. 10 and 11, attached school fees to the privilege of having adult education programs. The No. 10 item placed all costs upon the adult receiving the education. On the initial survey, the student teacher groups generally (5 of 6) exhibited only slight disagreement with this view. All six groups increased slightly in this disagreement during their student teaching. Generally the gains were greater over the last three years (1963-1965) than in the earlier years; this despite the somewhat higher entering scores of student teachers during the latter years.

As for item 11, which asked only that a major portion of the cost be paid by adult students, the student teachers tended to be neutral or slightly less critical of it. Upon completion of student teaching, some gains had been made by four of the six groups, while the 1960 and 1965 students evidenced little change in their views.

Inventory Statement No. 10: "Public school education in N. C. should be extended beyond the high school level to specialized groups with specialized needs provided these groups pay all of the costs of such education."

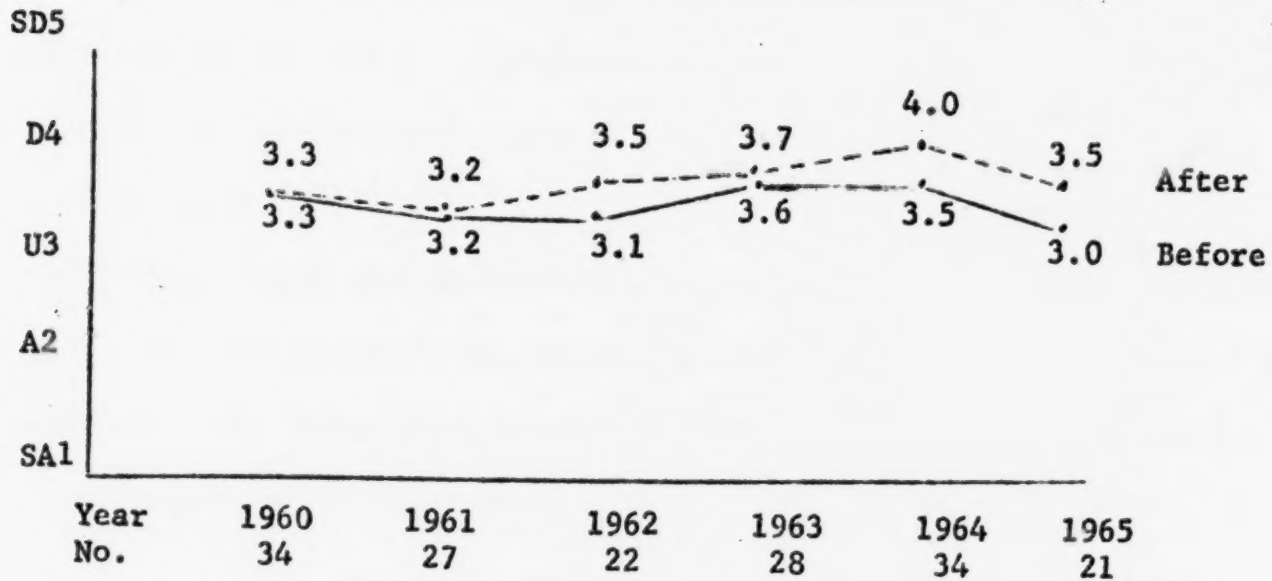


Figure 8: Comparison of Viewpoints of College Seniors Toward Statement No. 10 Before and After Student Teaching, N. C. State, AED, 1960-1965.

Inventory Statement No. 11: "Same as No. 10 except provided these groups pay a major portion of the cost of such education.

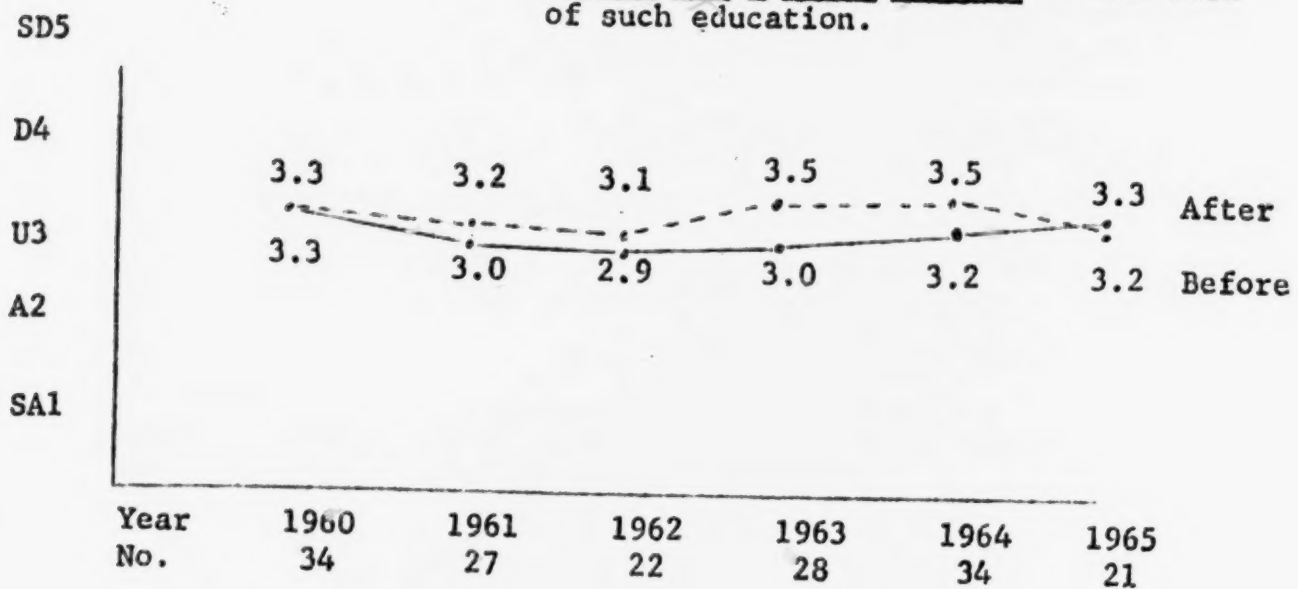


Figure 9: Comparison of Viewpoints of College Seniors Toward Statement No. 11 Before and After Student Teaching, N. C. State, AED, 1960-1965.

Item 13 was in a sense another way of stating Item 3 of the inventory and was considered an aid to the validity of this inventory. The classes varied mainly in the attitude they brought to the student teaching semester. The 1960, 1961, and 1962 classes gave generally uniform, high initial scores, reflecting confidence in the Vo Ag Departments' programs for meeting educational needs in adult farmer education. The 1963, '64, '65 groups exhibited considerably lower scores. In addition, each of the last three years showed declining scores over the previous year. However, all six groups ended student teaching with fairly uniform, high mean-scores. Again, the results indicated approval of adult education in agriculture as a function of the public schools.

Inventory Statement No. 13: "Other agencies, such as Agri. Extension, Soil Conservation Service, and F. H. A. are in far better position to meet the educational needs of farmers than are the public schools through their programs of Vo. Ag."

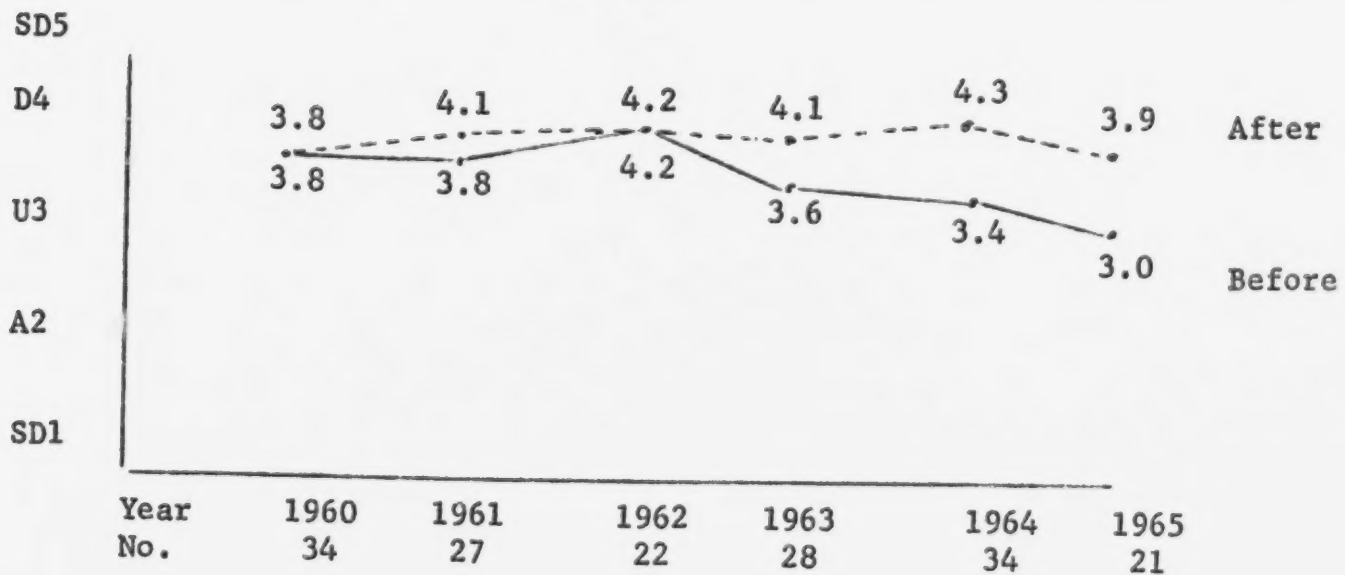


Figure 10. Comparison of Viewpoints of College Seniors Toward Statement No. 13 Before and After Student Teaching, N. C. State, AED, 1960-1965.

On the question of administrative problems (Item 14), five of the six groups concluded student teaching with mean-scores more favorable to adult education than they were at the beginning. The 1962 class showed a slight regression in their score but still ended with a position equal to the 1960 class. In summary, the groups tended to be neutral toward the statement upon entry and tended to see adult education favorably at the conclusion of student teaching.

Inventory Statement No. 14: "Having adult education programs in Vo Ag causes many administrative problems".

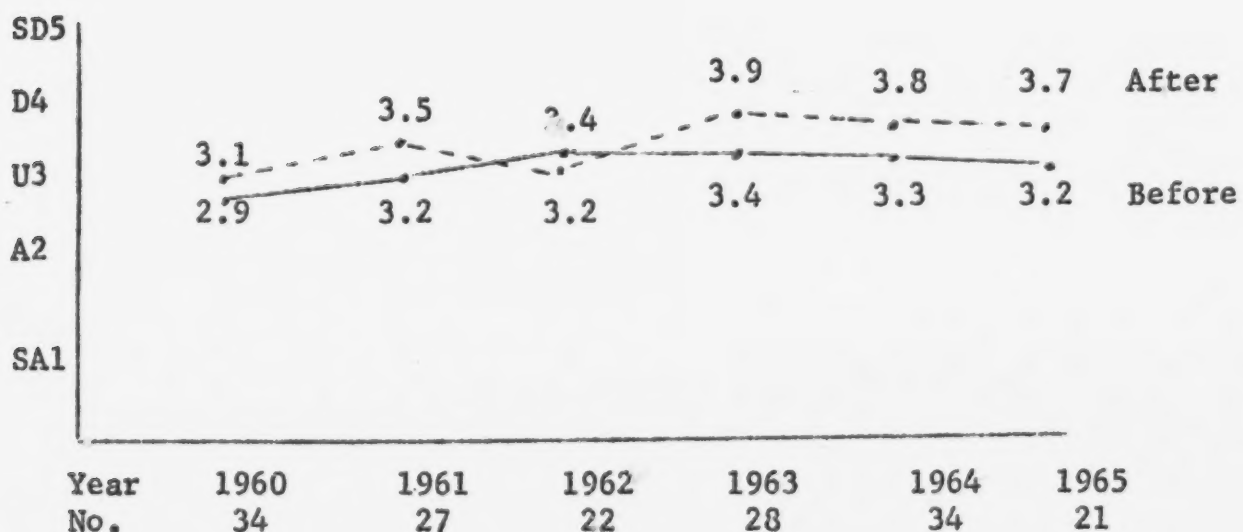


Figure No. 11. Comparison of Viewpoints of College Seniors Toward Statement No. 14 Before and After Student Teaching, N. C. State, AED, 1960-1965.

Reactions to the Positive Statements

This final group of seven attitude-inventory items are all statements favorable to adult education. They were distributed at random within the inventory but are presented here as a group for convenience in comparison of student reactions.

In the previous seven negative items, a high score indicated favorable attitude toward adult education, although disagreement with the inventory

item. To preserve the continuity of the report and provide convenience in comparing the two sets of seven items, it was decided to present each of this second set of statements on a "reversed" scale. The scale thus appears as follows with SA meaning "strongly agree" and SD, "strongly disagree".

SA	A	N	D	SD
5	4	3	2	1

In all of the following seven statements a high score is considered favorable to adult education in agriculture, just as in the first set of scores.

The next graph, Figure 12 shows that entering student teachers strongly approved of the general responsibility of public schools for adult education. Following student teaching, students were even stronger in their approval and this held for all six groups.

Inventory Statement No. 1: "It is the responsibility of public schools to provide educational opportunities for all persons who need, desire, and can profit by such education".

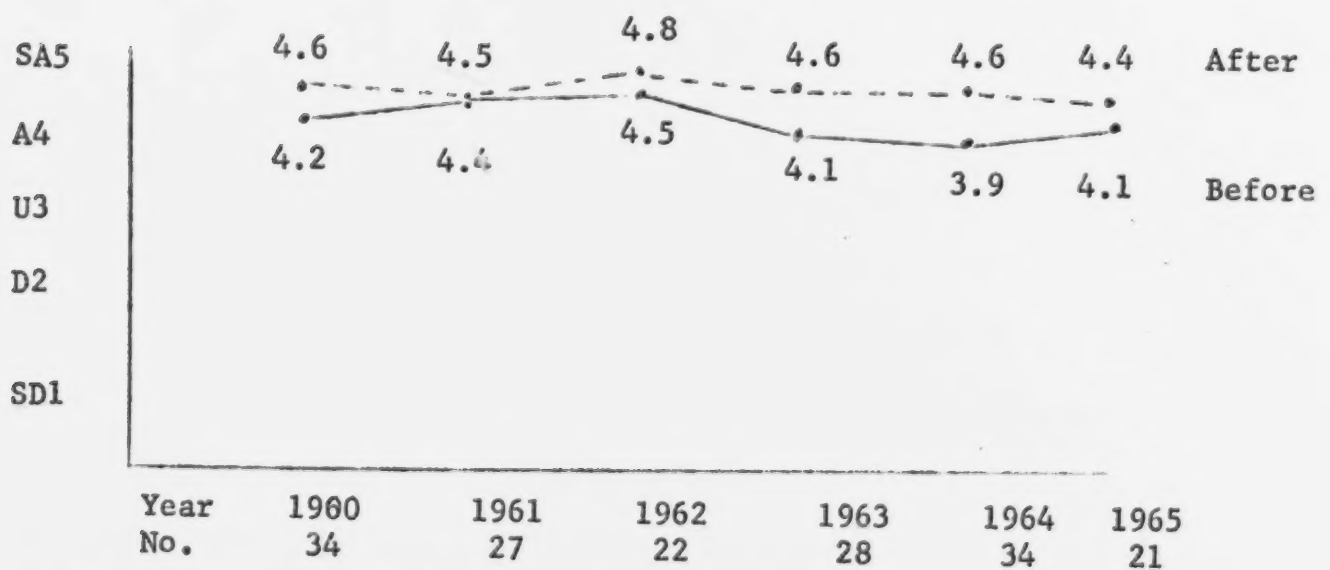


Figure 12. Comparison of Viewpoints of College Seniors on Statement No. 1 Before and After Student Teaching, N. C. State, AED, 1960-1965.

As seen in Figure 13, when the question of adult education was related to the responsibility of the department of vocational agriculture and stated as a primary responsibility, the approval of entering student teachers was less favorable than in the preceding question. Yet the final reaction of each of the six groups showed "approval" gains, and the concluding levels of approval were high. The last three groups (1963-64-65) tended to show slightly lower entrance scores but responded with generally larger gains.

Inventory Statement No. 4: "Teaching Vo Ag to Adult Farmers is one of the primary responsibilities of the Vo Ag teacher."

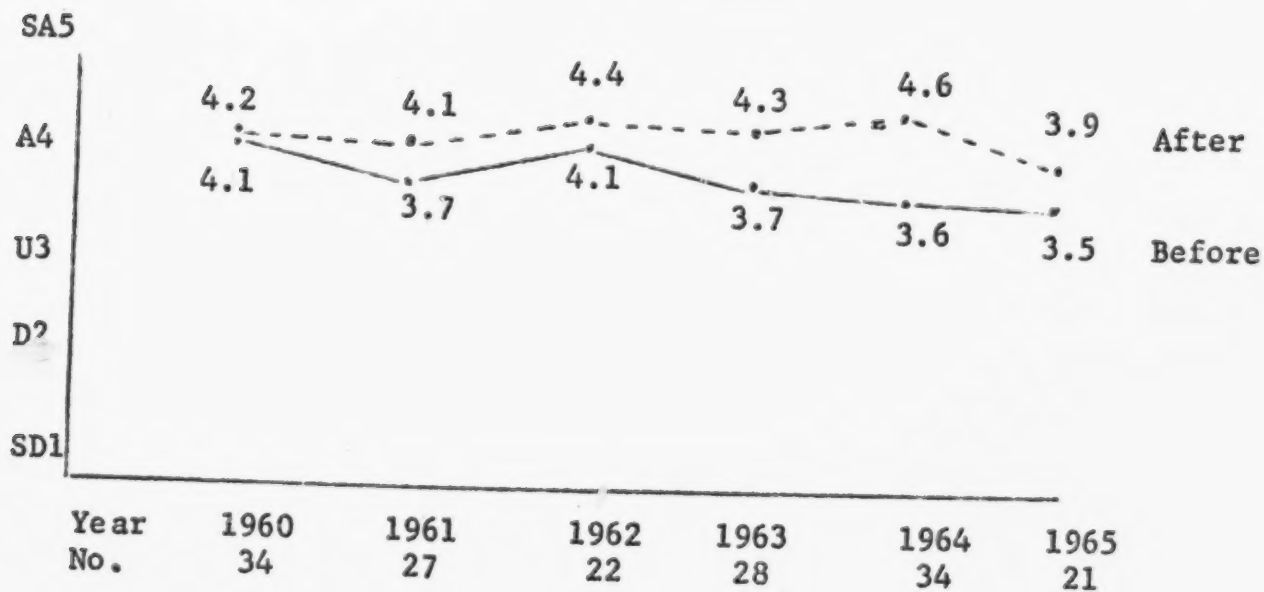


Figure 13. Comparison of Viewpoints of College Seniors Toward Statement No. 4 Before and After Student Teaching, N. C. State, AED, 1960-1965.

The graph for Item 5, concerning home visitations as a part of the Vo Ag program, indicated almost universal agreement among the six groups and at a very high level of approval for the item. In the retrospect, this item might be improved by making it more specifically related to visits to adults. In the minds of entering student teachers, the word "students" probably does not include "adults". Thus the high

initial score could be more a product of their favorable reaction to home visits to pupils. Since it may be assumed that the final score includes "adults" as part of the concept of "students" (because of the nature of student teaching), one can speculate that the final score here represents more gain than is indicated by the score.

Inventory Statement No. 5: "The time for making home visits to students of Vo Ag should be recognized as part of the Agriculture teacher's load".

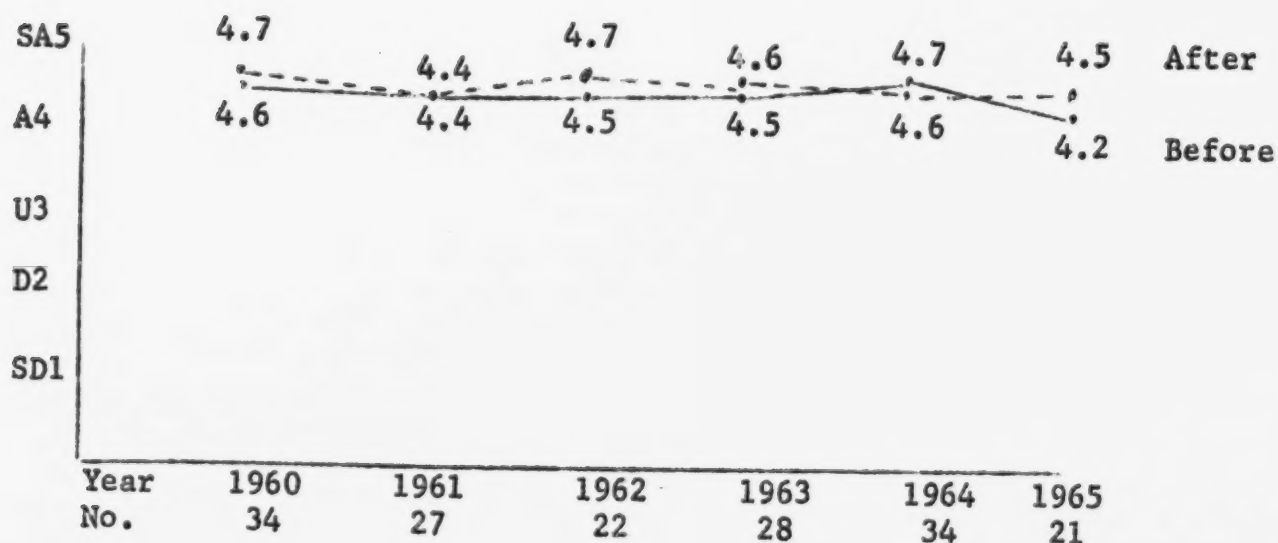


Figure 14. Comparison of Viewpoints of College Seniors Toward Statement No. 5 Before and After Student Teaching, N. C. State, AED, 1960-1965.

In the next graph, student teachers indicated the strongest approval for any statement in the inventory. This statement, No. 6, dealt with time for adult classes. In no case was there a mean score below 4.2 (4.0 is "agreement"), and for five of six groups this high approval was increased during student teaching. It may be noted that in the last three years (1963-1964-1965) the entrance scores were somewhat lower than for the first three years.

Inventory Statement No. 6: "Schedules for Vo Ag Teachers should provide time for work with adult classes."

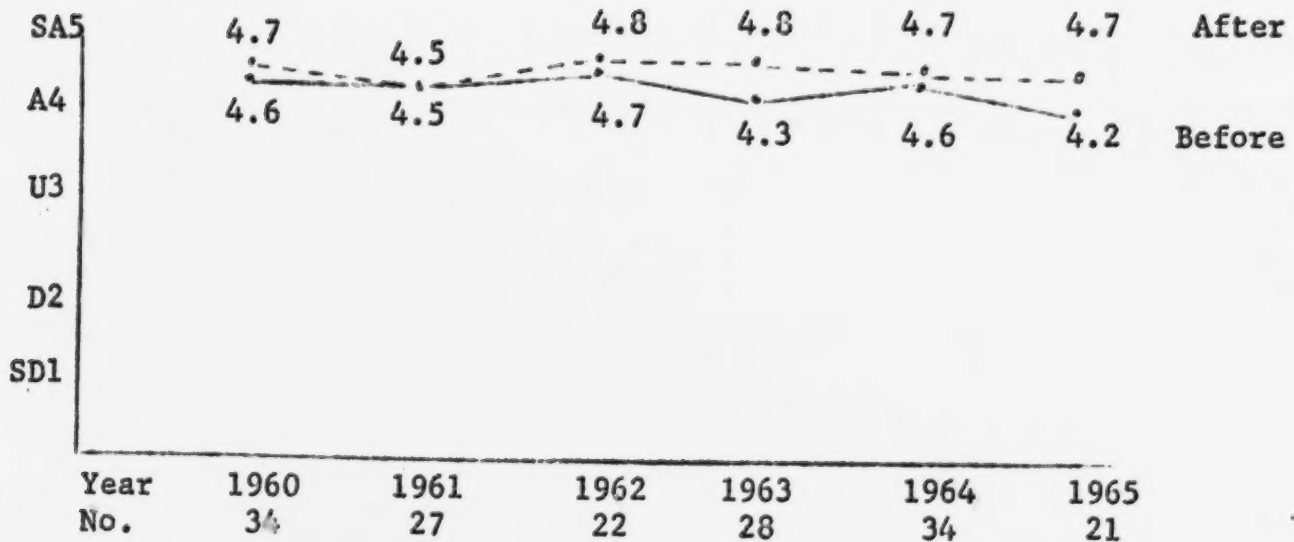


Figure 15. Comparison of Viewpoints of College Seniors Toward Statement No. 6 Before and After Student Teaching, N. C. State, AED, 1960-1965.

Item 7 is shown in Figure No. 16 and indicates greater variation and lower approval both on beginning and ending mean scores than was shown in the previous two items. In general, there was approval on entrance scores for the concept that adult farmer classes should be held in every Vo Ag department. There was also "gain" for each group except in 1962, and these gains were exceptionally uniform in amount.

Inventory Statement No. 7: "Classes for adult farmers should be organized and conducted in each school that maintains a department of Vo Ag."

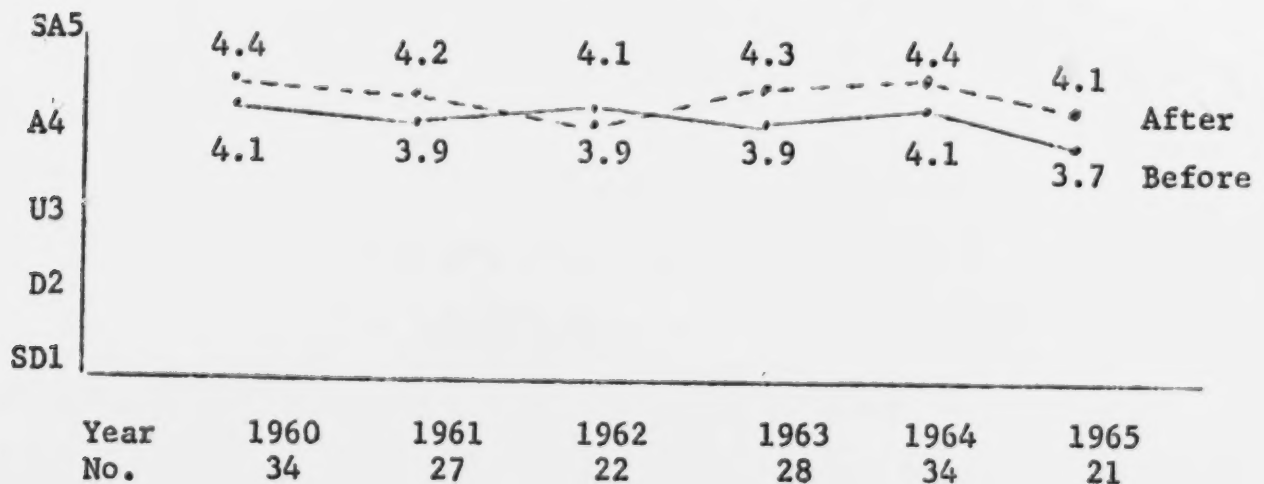


Figure 16. Comparison of Viewpoints of College Seniors Toward Statement No. 7 Before and After Student Teaching, N. C. State, AED, 1960-1965.

On the question of public school adult education for specialized groups with specialized needs (Figure 17), beginning student teachers over the years exhibited a fairly uniform tendency for approval at the 3.6 to 3.9 level. And there was a general gain exhibited by five of the six groups. However, the 1962 group again, as in Figures 11 and 16 showed exception to the trend and dipped considerably below their initial viewpoints. The final mean-score of 3.1 for the 1962 group is so much below the final mean-score of the second lowest group (3.8) that further study of this group and the student teaching situation in 1962 might provide insights helpful in future planning.

Inventory Statement No. 9: "Public school education in N. C. should be extended beyond the high school level to specialized groups with specialized needs."

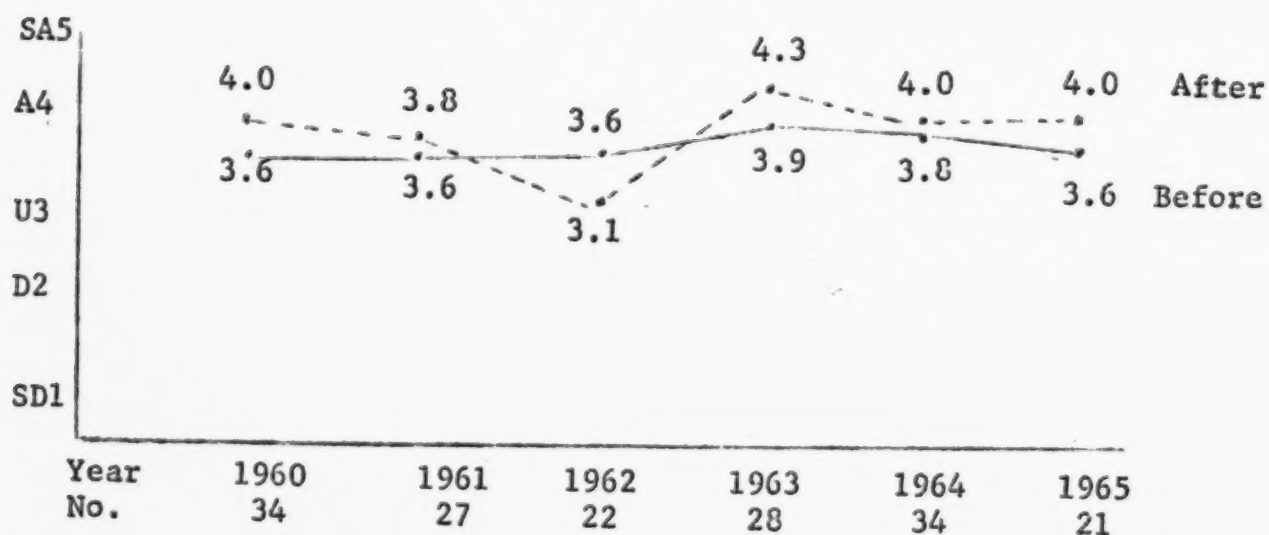


Figure 17. Comparison of Viewpoints of College Seniors Toward Statement No. 9 Before and After Student Teaching, N. C. State, AED, 1960-1965.

The final item discussed in this section is shown in Figure 18 and is a modification of Item 9 presented previously in Figure 17. In

essence, it adds "cost", only a part of the cost, to the question of public schools providing adult education for specialized groups. The responses to this statement are unique in that three of the six groups tended to lower their approval for it after having had student teaching, and a fourth group indicated no gain in viewpoint. The scores after student teaching did however show more uniformity among the six groups than did the entrance scores. In general, student teachers indicated little change of viewpoints and the overall ending scores were among the lowest for any of the fourteen items--although still indicating a slight tendency to approve the practice of charging part of adult education costs to the enrollees.

Inventory Statement No. 12: "Same as No. 9 except add: 'Provided these groups pay a part of the cost of such education'."

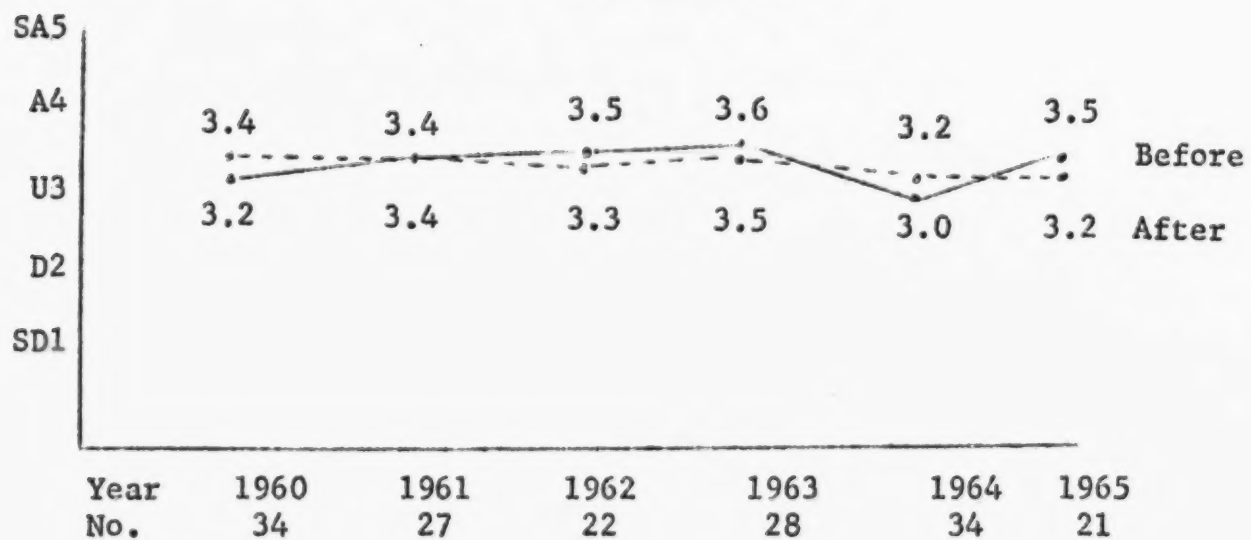


Figure 18. Comparison of Viewpoints of College Seniors Toward Statement No. 12 Before and After Student Teaching, N. C. State, AED, 1960-1965.

Summary

This was a study of the differences in attitudes toward adult education exhibited by college seniors before and after their semester of student teaching. The sample was the total population and consisted of 166 student teachers who experienced student teaching during the six year period 1960-1965. Data were collected at the beginning and ending of each semester by means of a twenty-nine item attitude inventory.

The following is a summary of the data:

- (1) Each of the six student groups showed a gain in favorable attitude toward adult education as a function of the public school. (p. 3)
- (2) There was a statistically significant variation by years (classes) in (a) the initial scores, (b) ending scores, and (c) amount of change in attitude toward adult education. (p. 2)
- (3) There was, generally, a trend toward lower student attitude scores upon entry during the last half of the study. (p. 4)
- (4) There was, generally, a higher level of ending scores during the last three years than during the first part of the study. (p. 4)
- (5) After student teaching, five of six groups specified a larger proportion of teacher time should be devoted to the adult education program. (p. 6)
- (6) Before student teaching, the amount of teacher time which students reported should be devoted to adult education ranged from 31 to 43.7 per cent. After student teaching, the range became 35.9 to 48.3 per cent. (Figure 2, p. 5)
- (7) All year-groups of student teachers accepted a wider range of adult education activities after having had student teaching. At the end, ten of 13 activities presented were acceptable to 80 per cent or more of the 166 teachers. (p. 8)

(8) Analysis of 14 individual items revealed:

- (a) Prior to student teaching five of six groups tended to agree that "teaching high school boys" was the major function of Vo Ag (Figure 5, p. 10)
- (b) After student teaching, four of six classes tended to disagree with the above statement, and all six classes showed changes in viewpoint which implied greater acceptance of adult education as a major function of the Vo Ag department. (Figure 5, p. 10)
- (c) In the last three years (1963-4-5) there were successive increases in the tendency of entering student teacher groups to agree that teaching high school boys is the major function of vocational agriculture. (Figure 5, p. 10)
- (d) Student teachers exhibited strong disagreement (before and after student teaching) with the ideas of (1) all adult education should be left to "other" agricultural agencies and (2) "Other" agencies are better able to serve farmer needs than the public schools. (Figure 6, p. 10)
- (e) Student teachers strongly approved (before and after student teaching) adult education by public schools for all who need and desire it, and (2) of teaching Vo Ag to adult farmers as a primary responsibility of the Vo Ag teacher. (Figure 12, 13) There were indications of substantial gains in these viewpoints during the student teaching period.
- (f) Student teachers did not approve of assessing adult farmer enrollees with more than a minor part of the costs of adult education. (Figures 8, 9, 17, 18)

Conclusions and Implications

This study is evidence that student teachers gained a more positive attitude toward adult education as a function of the public school and as a primary responsibility of the teacher of agriculture.

There is indication that the student teaching experience in more recent years has been more effective in the above respect than it was in the first three years of the study.

During their student teaching semester, students also developed greater acceptance of a broad spectrum of adult education activities in agriculture and elevated their standards concerning the amount of teacher time which should be devoted to adult education.

The study also revealed some attitudinal levels among entering student teachers which indicate further study is needed. There should be some concern that the more recent classes entered student teaching with lower attitudes toward adult education than exhibited by earlier classes.

Implications

Some implications from this study are:

1. For research: Future studies of the student teaching program should be designed to include pertinent independent variables. Among these variables should be student characteristics, factors pertaining to the off-campus student teaching situations, and selected economic, sociological, and educational trends which would have potential for providing greater understanding of the problem under study.
2. Teacher educators should be acquainted with this study as one means of supporting their belief in the value of the student teaching experience. Other institutions should attempt to verify the conclusions drawn herein with studies of their own situations.
3. The evidence that the more recent student teachers seem to be entering student teaching with less appreciation for the public school adult education function should be used to stimulate discussion

among leaders in adult education concerning this question:

"In this changing society, to what extent should the public school assume a responsibility for adult education in the future."

APPENDIX A

Significance of Mean-Increases By Items

A comparison and indication of significance¹ of the mean increases for each of the 14 items concerning attitudes toward public school adult education from before to after student teaching involving 5 years² or a total of 133 students.

<u>Item</u>	<u>Mean Increases</u>
1. It is the responsibility of public schools to provide educational opportunities for all persons who need, desire and can profit by such education.	.2706*
2. The major function of the vocational agriculture department should be that of teaching vocational agriculture to high school students.	.5939*
3. All agricultural education for adult farmers should be provided by agricultural agencies other than the public schools.	.2105
4. Teaching vocational agriculture to adult farmers is one of the <u>primary responsibilities</u> of vocational agriculture teachers.	.3909*
5. The time for making home visits to students of vocational agriculture should be recognized as part of the agriculture teacher's load.	.1353
6. Schedules of vocational agriculture teachers should provide time for work with adult classes.	.2706*

¹ By using the error term derived in the analysis of variance, confidence limits can be placed on each mean-increase to determine its significance. Those increases signified by asterisks are significant at the .05 level.

² One year, 1964, was omitted from statistical analysis due to the omission of student names on the questionnaires.

7. Classes for adult farmers should be organized and conducted in each school that maintains a department of vocational agriculture. .2180
8. Free public school education in North Carolina should stop with age 21 or upon completion of, or dropping out of high school. .3458*
9. Public school education in North Carolina should be extended beyond the high school level to specialized groups with specialized needs. .2556
10. Same as Number 9 except add: "Provided these groups pay all of the cost of such education." .1052*
11. Same as Number 9 except add: "Provided these groups pay a major portion of the cost of such education." .0601
12. Same as Number 9 except add: "Provided these groups pay a part of the cost of such education." .0075
13. Other agencies such as Agricultural Extension, Soil Conservation Service, and Farmers Home Administration are in far better position to meet the educational needs of farmers than are the public schools through programs of vocational agriculture. .3157*
14. Having adult education programs in vocational agriculture causes many administrative problems. .2255*